

CLAIMS

What is claimed is:

1. An apparatus to cleave an optical fiber, comprising:
a base plate;
a jig slidably provided on the base plate and holding the optical fiber;
a stripper provided proximate to the jig, and including a hot plate heating a sheath of the optical fiber, a sheath cutter cleaving the sheath of the optical fiber to be stripped, a cleaning part cleaning the optical fiber after the sheath of the optical fiber is stripped as the jig slides; and
a cleaver provided on the base plate and cleaving the optical fiber whose sheath is stripped by the stripper.
2. The apparatus according to claim 1, wherein the jig comprises a jig plate formed with a groove on which the optical fiber is put, and a holding member holding the optical fiber put on the groove.
3. The apparatus according to claim 2, wherein the holding member includes a cover rotatably combined to the jig plate, and a compression part of elastic material in the cover to allow the cover to elastically hold the optical fiber.
4. The apparatus according to claim 1, wherein the cleaning part of the stripper includes an injection hole through which a cleaner is injected to the optical fiber whose sheath is stripped.
5. The apparatus according to claim 1, wherein the cleaver comprises a gripper clamping the optical fiber, a cutting wheel making a cleaved line in a lower part of the optical fiber clamped by the gripper, and a compression block compressing the optical fiber placed on the cutting wheel to cleave the optical fiber.
6. The apparatus according to claim 5, further comprising cylinder actuators to operate the gripper, the cutting wheel and the compression block, respectively.
7. The apparatus according to claim 5, wherein the gripper is partially covered with silicone to prevent the optical fiber from being damaged while clamping the optical fiber.

8. The apparatus according to claim 5, further comprising a rotation unit connected to the cutting wheel and rotating the cutting wheel.

9. The apparatus according to claim 5, further comprising a height adjusting unit connected to the cutting wheel and adjusting the height of the cutting wheel.

10. The apparatus according to claim 1, further comprising a driving unit to operate the jig and the stripper simultaneously .

11. The apparatus according to claim 10, wherein the driving unit comprises:

a motor ;

a timing pulley rotated by the motor and sliding the jig ; and

a cam rotated by the motor and reciprocating the stripper.

12. An apparatus to cleave an optical fiber, comprising:

a jig slidably holding the optical fiber;

a stripper provided proximate to the jig, and including a hot plate heating a sheath of the optical fiber, a sheath cutter cleaving the sheath of the optical fiber to be stripped, a cleaning part cleaning the optical fiber after the sheath of the optical fiber is stripped as the jig slides; and

a cleaver proximate to the jig and cleaving the optical fiber whose sheath is stripped by the stripper.

13. The apparatus according to claim 12, wherein the jig is located on a base plate.

14. The apparatus according to claim 13, wherein the jig comprises a jig plate formed with a groove on which the optical fiber is put, and a holding member holding the optical fiber put on the groove.

15. The apparatus according to claim 14, wherein the holding member includes a cover rotatably combined to the jig plate, and a compression part of elastic material in the cover to allow the cover to elastically hold the optical fiber.

16. The apparatus according to claim 12, wherein the cleaning part of the stripper

includes an injection hole through which a cleaner is injected to the optical fiber whose sheath is stripped.

17. The apparatus according to claim 12, wherein the cleaver comprises a gripper clamping the optical fiber, a cutting wheel making a cleaved line in a lower part of the optical fiber clamped by the gripper, and a compression block compressing the optical fiber placed on the cutting wheel so as to cleave the optical fiber.

18. The apparatus according to claim 17, further comprising cylinder actuators to operate the gripper, the cutting wheel and the compression block, respectively.

19. The apparatus according to claim 17, wherein the gripper is partially covered with silicone to prevent the optical fiber from being damaged while clamping the optical fiber.

20. The apparatus according to claim 17, further comprising a rotation unit connected to the cutting wheel and rotating the cutting wheel.

21. The apparatus according to claim 17, further comprising a height adjusting unit connected to the cutting wheel and adjusting the height of the cutting wheel.

22. The apparatus according to claim 12, further comprising a driving unit to operate the jig and the stripper simultaneously.

23. The apparatus according to claim 22, wherein the driving unit comprises:

a motor;

a timing pulley rotated by the motor and sliding the jig; and

a cam rotated by the motor and reciprocating the stripper.

24. An apparatus to cleave an optical fiber, comprising:

a heated stripper to strip a sheath off the optical fiber and simultaneously clean an unsheathed optical fiber; and

a cleaver proximate to the heated stripper and cleaving the unsheathed optical fiber.

25. The apparatus according to claim 24, wherein the heated stripper comprises:

a hot plate to heat the sheath of the optical fiber;
a sheath cutter to cleave the sheath of the optical fiber; and
a cleaning part to clean the unsheathed optical fiber.

26. The apparatus according to claim 25, further including a jig proximate to the heated stripper and cleaver and located on a base plate to hold the optical fiber.

27. The apparatus according to claim 26, wherein the jig comprises a jig plate formed with a groove on which the optical fiber is put, and a holding member holding the optical fiber put on the groove.

28. The apparatus according to claim 27, wherein the holding member includes a cover rotatably combined to the jig plate, and a compression part of elastic material in the cover to allow the cover to elastically hold the optical fiber.

29. The apparatus according to claim 25, wherein the cleaning part of the heated stripper includes an injection hole through which a cleaner is injected to the optical fiber whose sheath is stripped.

30. The apparatus according to claim 24, wherein the cleaver comprises a gripper clamping the optical fiber, a cutting wheel making a cleaved line in a lower part of the optical fiber clamped by the gripper, and a compression block compressing the optical fiber placed on the cutting wheel so as to cleave the optical fiber.

31. The apparatus according to claim 30, further comprising cylinder actuators to operate the gripper, the cutting wheel and the compression block, respectively.

32. The apparatus according to claim 30, wherein the gripper is partially covered with silicone to prevent the optical fiber from being damaged while clamping the optical fiber.

33. The apparatus according to claim 30, further comprising a rotation unit connected to the cutting wheel and rotating the cutting wheel.

34. The apparatus according to claim 30, further comprising a height adjusting unit

connected to the cutting wheel and adjusting the height of the cutting wheel.

35. The apparatus according to claim 26, further comprising a driving unit to operate the jig and the heated stripper simultaneously.

36. The apparatus according to claim 35, wherein the driving unit comprises:
a motor;
a timing pulley rotated by the motor and sliding the jig; and
a cam rotated by the motor and reciprocating the heated stripper.